

In re: Serial No. 10/008,233

Filed: November 6, 2001

Page 2 of 4

This listing of claims will replace all prior versions and listings of the claims in the application:

Listing of the Claims:

Claims 1-137 (canceled).

138. (currently amended). A microelectronic device useful for the electrochemical detection of a nucleic acid species, said device comprising:

a microelectronic substrate having first and second opposing faces;
a plurality of conductive oxidation-reduction detection electrodes on said first face; and
a plurality of oligonucleotide capture probes immobilized on a non-conductive layer on said first face adjacent said conductive oxidation-reduction electrodes;

with each of said different oligonucleotide capture probes positioned adjacent a different conductive oxidation-reduction electrode;

and with each of said plurality of oligonucleotide probes and said oxidation-reduction detection electrodes electrically connected by an aqueous solution, said aqueous solution having a the same transition metal complex therein;

and wherein said aqueous solution connecting each of said plurality of oligonucleotide probes and said oxidation-reduction detection electrodes is the same.

139 (Cancelled).

140 (currently amended). A microelectronic device according to claim 138, further comprising a contact electrically connected to said conductive oxidation-reduction electrode.

141 (original). A microelectronic device according to claim 138, wherein said substrate is silicon.

142 (original). A microelectronic device according to claim 138, wherein said oligonucleotide capture probe is from 4 to 100 nucleotides in length.

In re: Serial No. 10/008,233

Filed: November 6, 2001

Page 3 of 4

Claims 143-151 (canceled).